

STATE OF SOUTH CAROLINA

(Caption of Case)

Combined Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity for a Base Load Review Order for the Construction & Operation of a Nuclear Facility in Jenkinsville, South Carolina

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2008 - 196 - E

(Please type or print)

Submitted by: Pamela GreenlawSC Bar Number: NA.Address: 1001 Wotan Rd.Telephone: 803 - 736 - 2977Columbia, SC 29229

Fax: _____

Other: _____

Email: pmlgrnlw@yahoo.com

NOTE: The cover sheet and information contained herein neither replaces nor supplements the filing and service of pleadings or other papers as required by law. This form is required for use by the Public Service Commission of South Carolina for the purpose of docketing and must be filled out completely.

DOCKETING INFORMATION (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☐ Other: _____

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input checked="" type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input checked="" type="checkbox"/> Other: <u>Brief</u>	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

BRIEF and ORDER

Docket Number 2008-196-E: Combined Application of South Carolina Electric and Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility in Jenkinsville, South Carolina

Submitted to the Public Service Commission of South Carolina this 30th Day of January, 2009
By Pamela Greenlaw, Intervenor

RECEIVED
2009 JAN 30 PM 1:22
SOUTH CAROLINA
PUBLIC SERVICE
COMMISSION

I. Introduction

The Commission has by law the latitude to grant the application as filed or as modified or conditioned by the Commission according to the Base Load Review Act, SECTION 58-33-160. This section states in part (1)

“ The Commission shall render a decision upon the record either granting or denying the application as filed, or *granting it upon such terms, conditions or modifications of the construction, operation or maintenance of the major utility facility as the Commission may deem appropriate*; such conditions shall be as determined by the applicable State agency having jurisdiction or authority under statutes, rules, regulations or standards promulgated hereunder, and the conditions shall become a part of the certificate. “

Chapter 33, the Utility Siting and Environmental Protection Act lists six criteria which must be met in order for the Commission to grant a certificate. The criteria a,b,c, and f. have not been met in this case. In 58-33-160 the Law states “ the Commission may not grant a certificate unless it shall find and determine a. basis of need for the facility; b. the nature of probable environmental impact, and c. that the impact upon the environment is justified considering the state of available technology, the nature and economics of the various alternatives, and other pertinent considerations; and f. that public convenience and necessity require the construction of the facility.” The Company has not met any of the above four criteria for a two-unit nuclear facility.

In accordance with South Carolina Code of Laws and judging by normal, legal, and prudent decision-making practices, the Public Service Commission must find inadequate and imprudent the Combined Application of South Carolina Electric and Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility in Jenkinsville, South Carolina and in so finding critical areas of the application lacking, must deny said application at this time and order critical and legal conditions be met before the application can be resubmitted.

II. Failures of Company to Conform to Chapter 33 Criteria A, B, C, and F

A. Legal Criterion a, “the basis of need for the facility,” is a criterion unmet by the Company’s lack of meeting the test of presenting a preponderance of evidence either for the future need or for that future need having to be met only by base load nuclear generation.

In explanation of the long-range forecast, Witness Lynch referred to the variables in the drivers for making this prediction of electricity in the Integrated Resource Plan (IRP) updated in May 2008, page B-4. Under cross-examination Dr. Lynch admitted that he had not made adjustments when two critical variables changed, i.e. service area real per capita income and service area real personal income. The changes in these two variables in the light of the worldwide recession demands a new forecast based upon available data. The negative decline in these two variables coupled with South Carolina's 8.4% unemployment rate, a business dissolution rate of 50%, and a child poverty rate of 26% (reference Global Insights), and a new picture emerges. A basic touchstone for determining prudence is the inclusion of data available to the utility prior to the time of an order. To move forward without revision of the prediction would constitute failure to meet the test of evidence and would be a grave imprudence.

In a second example of failure to fulfill the test of presenting a preponderance of evidence for need for the two units requested in its application, the Company's witnesses expressed the need of SCE&G for one unit and part of another. In his own words, President Kevin Marsh stated in prefiled testimony and on the witness stand that "...two full units would be more that SCE&G would need itself " (transcript, Vol. 2, p.197, lines 22-24). SCE&G is asking for permission to build two units with 55% of the units for its own customers, and 45% of the two units for Santee Cooper.

SCE&G could not have been able to present evidence for Santee Cooper's need, nor could it present witnesses on behalf of Santee Cooper. By regulation Santee Cooper could not be compelled to testify. Santee Cooper's need for 45% of the units is impossible to determine from these proceedings. Mr. Marsh stated from the stand that the Company made a decision to proceed in May 2008 with the construction of 2 . . . units in partnership with Santee Cooper. " The Commission cannot determine Santee Cooper's need from evidence, since none was given in the proceedings. As a result, testimony given about Santee Cooper was not possible to corroborate. The evidence of need for two full units is substantially lacking, leaving the Commission and the Parties in the lurch. The Public Service Commission must require greater amount, depths, and types of evidence from the Company to prove need of the power for its own its consuming customers from two nuclear units since this Commission is being asked to approve two units. Barring that requirement the Commission must request the State Authority over Santee Cooper to compel Santee Cooper to prove its need by the same public process as SCE&G in order to ascertain all relevant data and information. Overt omission of relevant available data that is by regulation inaccessible is an additional grave imprudence.

SCE&G, the Company, states that it needs 55% of the two units' generating capacity. That 55% amounts to 1,117 MW of one unit plus 111.70 MW of the second unit. To put this second amount into perspective, for illustrative purposes, this amount is comparably half the MW impact of SCE&G's current DSM measures. (Integrated Resource Plan, May 2008 updated, PG 9) The future 111.70 MW can be displaced or can be generated more readily and cheaply by means other than by nuclear power base load.

Existing methods of power displacement or generation include Fairfield Pumped Storage Facility, which according to the IRP, p. 10 "shaved about 400 Maws from the daily peak times . . . and moved almost 4% of customer's daily energy needs to the off peak." as revealed in testimony of Witness Brockway and by extrapolation from testimony of Witness Lynch. The Company could but

does not plan to create an additional pumped storage facility. Another method of power displacement or generation is Demand Side Management. According to Witness Lynch who wrote the IRP the DSM future impact of 209 MW reflected in the table, p. 9, is dependent upon load management only. Under cross examination Witness Lynch relented that other significant methods of power displacement or generation more readily and cheaply implemented are not in place. Effective programs once offered by the Company were abandoned, such as the Great Appliance Trade Up program. The loan program for replacing HVAC systems was mothballed. Energy efficiency advisement to customers, once a free, thorough walk through by a Company expert with a customer through the home with a complete checklist to find and show how to custom weatherize, became a \$25 Value Visit in which the customer is given a list and a walk through is not necessarily completed. The flimsy incentives do not demonstrate a serious effort of the company to reduce energy usage (e.g., \$30 per house for replacement of all the windows with energy efficient windows, a net incentive of \$5 for several hundred dollars' worth of windows).

In the introduction of the IRP, p.1, Witness Lynch had written that the impact of mandated increases in levels of efficiency in lighting is expected to be significant. In the same introduction Witness Lynch had written that the company removed the 2011 option of two peaking turbines from its expansion plan in light of the possibility of legislation increasing the use of renewable generation and energy efficiency. The Company already had its solution to meeting future power needs without having to build a nuclear plant: two peaking turbines combined with energy efficiency of sufficient saturation and penetration, conservation, increased demand response and demand supply measures, incremental increase of renewable energy generation, and distributed generation infrastructure development will meet the need projected by the Company, all without having to build an untested new nuclear plant of unknown costs and consequences, particularly if the new units do not work as designed or as hoped. After this multi-faceted solution has been put into place and further need for electric generation exists, the Company can reapply to build a base load plant.

B. Legal Criterion b. "The nature of probable environmental impact [of the nuclear plant]" as presented by the Company, by various witnesses, and by intervenors is one of estimated benefits negated by dangers. First of all, probable environmental impacts cannot be known, as there is no track record for the AP 1000 units proposed. Everything is speculation except for the fact that the spent fuel and used cores cannot be stored indefinitely at the site. Radioactive releases to the air and to water and land can be measured at existing plants only.

Also unknown is how the AP1000's will cool in a severe drought. Despite Mr. Byrne's insistence that the entire set of 3 plants, SC Summer 1,2, &3, could be cooled for 76 days from Lake Monticello, there is no plan for a drought that extends to the point of pushing the 76 days into a greater extension of time. When Greenlaw asked the Company witness if this is why SCE&G opposed surface water legislation last year in the State Assembly, not an answer could be given. The witness for SCE&G stated he did not know and that I should ask the lawyers. Of course, the lawyers for the Company do not give themselves marching orders. The desire to be able to withdraw water from the Broad River in case of this scenario is in fact exactly why the Company opposed the proposed legislation. A probable environmental impact of the facility on the Broad River will be a severe lack of water in the river, death of aquatic life, a reduction in water for drinking for the City of

Columbia and for the Greater Columbia area if there is an extended drought, especially if Duke Power builds its plants on the same river.

C. Legal Criterion c. "That the impact upon the environment is justified considering, 1. the state of available technology, 2. the nature of economics of the various alternatives, and 3. other pertinent considerations"

1. First and foremost, the impact upon the environment by this nuclear power plant cannot be justified unless it is the sole means for reducing toxic and green house gases, which it is not. The state of available technology must be judged in a two-prong fashion: available nuclear technology and available other technology. The nuclear technology for the AP 1000 has never been built as a prototype or as a demonstration model. Not only is the environmental impact of the technology of the AP 1000 plant itself unknowable, the sufficient robustness of available technology for storing its waste far into the future is also unknowable. As Counsel Guild stated in the course of cross-examination, the fact is that our country will not even exist for the 10,000 or 100,000 years to monitor the waste. How can we know the environmental impacts to be able to judge its justification? How can we know what are the consequences of massive amounts of radioactive material into endless generations? No ethical or moral person can say the consequences or impacts are worth the health and existence of future generations should control of the waste become impossible to manage.

Thirty years ago, the prevailing wisdom was that we would have a solution to the storage of the radioactive waste, and today we are no closer to storage solutions. On the other hand thirty years ago, the prevailing wisdom about renewable technologies was that these would become more efficient and less expensive as research and development proceeded. Witness Brockway testified that this is in fact what has occurred.

2. The justified impact upon the environment of a nuclear plant based upon the nature of economics of the various alternatives is obviously nil. The various alternatives have much less cost in terms of having to have security systems of 24-hour-active guards, Witness Brockway stated that it is important that the ratepayers are not locked into a gigantic investment from which we cannot escape. If DSM, efficiency, conservation, renewables development and deployment and other measures that can be instituted in a modular fashion do not work after aggressive efforts, we will economically be able to change he also stated that in a long and deep recession the risk will be that going through the commitment to nuclear base load, the financing capability of the public to support other options will be squeezed out. The economics of the nuclear plant includes low costs up front and very high costs at the back end, as opposed to alternative technologies which are expensive up front but lower in cost at the back end. In his testimony to Chairman Fleming, Witness Marsh stated that the alternatives considered in the Governor's CECAC recommendations were ones examined in the light of reduction of greenhouse gases. He stated that they did not do a complete evaluation of what would be the appropriate mix that would give you the least-cost alternative to customers." (transcript, p344, lines 16-20.) Unfortunately, not only is this untrue as one examines the references in the CECAC report, but the premise that capacity must be met only by base load is an assumption the Company must learn to release.

In a return to Witness Lynch's testimony under cross examination by Greenlaw, Witness Lynch admitted many economical alternative measures had not been even attempted or supported by best practices, specifically, no CHp (combined heat and power) programs for industry, still no benchmarks for net metering, a plan to force consumers into PACE at the expense of compensation and other best practices for net metering, no true energy audits, no use of social marketing techniques that educate rather than just inform,

3. "The justified impact upon the environment considering other pertinent considerations" is a matter of the human environment and prudence. Prudence considers fairness of the distribution of the financial burden of building the plant. One example of undue burden is the cross-subsidization of future customers by today's ratepayers. Another example which the Company is engaging in is charging costs of the new plant through revised rates in a disproportionate manner to retail customers over wholesale customers. (See testimony of O'Donnell) Adding the Company's interest on debt to the personal debt load of customers already suffering from their own credit woes, be it from home foreclosure or other causes, is an example of levying an unbearable burden. This will tighten the credit crunch. Considering the inability of many customers to pay their power bills, layering an additional rate to pay for a non-producing as yet non-existing product on top of fuel adjustment rate hikes, the proposal to increase rates will have the consequence of pushing even more families into dire straits, they may have to determine whether to pay for medicine or pay their power bill. Perhaps some will be pushed from poverty into homelessness.

Prudence is not only the ability to predict the likely consequences of that decision, especially given the "worst case scenario," but also the ability to determine whether the risks are ethically worth even the negative consequences of the decision. The negative consequences cannot violate protections of human welfare. One group cannot be made to suffer survival and health consequences for expediency of other groups, even if those other groups constitute a majority. Regardless of least cost benefit analyses, foremost in the mind must be that the decision made cannot condemn a group of people to a damaging or unduly burdensome course of action from which there will be no relief. This includes the all-in-costs which have not been brought before the Commission.

Prudence dictates that the processes by which decisions are made are open and transparent for the purpose of ensuring both utility and ratepayer protections. These processes must yield opportunities for discovery and examination of all relevant data and opportunities for cross-examination of the major players and stakeholders. The more information moved unnecessarily into confidentiality the greater the potential for lack of oversight by the affected parties and the greater the potential for mis- and/or dis-information and for abuse. The company's representatives made many missteps and mis-statements to the public in its propaganda and to the Public Service Commission concerning costs and how the entire package must be held to an up-or-down vote.

D. Legal Criterion f. "public convenience and necessity require the construction of a facility" This criterion is related to SC Code of Law, Chapter 4, Section 58-4-50 which lists the duties of the staff. In particular, #11 is the cinch point by which public convenience and necessity can be determined. It states one of the ORS staff duties is "When considered necessary by the Executive Director, educate the public on matters affecting public utilities which are of special interest to consumers." This application by SCE&G is necessarily of special interest to the public. No stakeholder meeting or sessions were organized or publicized. No educational or participatory meetings were held. Although this is not the fault of the Company but of the Office of Regulatory Staff, the Company should be aware that without working with the public, they are only assuming

that the convenience and necessity of the power plant for themselves must automatically extend to the public. This is incorrect and wrong-headed. Although the Company makes a profit not only on bonds and by other means, their primary profit system and motive is to sell as much electricity as they can. More than customer service the Company should put into place a stakeholder process of its own.

III. Recommended Orders by the Public Service Commission to SCE&G

The Public Service Commission must require greater amount, depths, and types of evidence from the Company to prove need of the power for its own consuming customers from two nuclear units since this Commission is being asked to approve two units. By the proofs in the brief, the Public Service Commission is constrained by law to deny the application.

In the light of the above legalities and lines of prudent decisions making, the Public Service Commission hereby orders the following:

1. The Application is at this time denied.
2. The Application can be brought back before the Commission when the following conditions have been met:
 - a. The Company shall revise both its short- and long-term forecasts using the most current criteria available since May of 2008.
 - b. The Company shall adjust its application based upon the revised forecasts.
 - c. The Company must develop a panoply of planned programs for DSM (including a net metering program that is based upon Best Practices), efficiency, and conservation with participatory assistance from stakeholders and coalition partners including appropriate governmental agencies, non profit and for profit organizations with deep experience in devising and operating successful DMS, efficiency, and conservation programs. Not only must be these planned programs be fully developed, they must be subjected to public scrutiny and requested to be placed into a separate docket to the Public Service Commission. These planned programs must include plans for aggressive implementation and be subject to strict pre-, post-, and ongoing evaluation as to their effectiveness.
 - d. The Company will make clear exactly what costs are the responsibility of the ratepayers, of the Company, and of the stockholders/shareholders without equivocation so that the all-in costs are included.
3. The Application when resubmitted must be for only one AP 1000 to eliminate double the trouble should the unit not work as planned or expected and to reduce the effect of force majeure events.

4. The ORS shall complete its duties regarding this application and the issues thereof by setting up educational and participatory stakeholder meetings.

RECEIVED
2003 JAN 30 PM 1:23
SOLUTION SERVICE
SOLUTIONS